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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/388,627	09/02/1999	THOMAS BIRKHOELZER	P991570	4250

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SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
6600 SEARS TOWER  
CHICAGO, IL 60606-6473

EXAMINER
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BOOKER, KELVIN E

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/388,627

Applicant(s)

BIRKHOELZER ET AL.

Examiner

Kelvin E Booker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,12 and 16-18 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13,24 and 25 is/are allowed.
- 6) ☒ Claim(s) 1-6,9-11,14,15,19-23 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detailed Office Action*.

## DETAILED ACTION

### *Response to Amendment*

1. In Amendment "A", filed October 27, 2003 (see paper no. 8), claims 1, 5, 6, 9, 11, 13, 14, and 19-23 have been amended; claims 7, 8, 12 and 16-18 have been cancelled; and claims 24-16 have been added. Claims 1-6, 9-11, 13-15 and 19-26 are presented for further examination.

### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1-6, 9-11, 14-15, 19-23 and 26** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. While the claims are in the technological arts, they are not limited to practical applications in the technological arts.

Specifically, the claims are directed toward a series of steps to be performed on a computer, but the ideas are disclosed abstractly from any particular practical application.

**Claims one and 26** focus on a computing system comprising an evaluation means for configuring and interrogating input information, wherein the elements are recited in means plus function format, and the claims fail to define a statutory specific machine. A machine or manufacture or system claim may be one of two types: (1) a claim that encompasses any and every machine for performing the underlying process or any and every manufacture that can cause a computer to perform the underlying process, or (2) a claim that defines a specific

machine or manufacture. When a claim is of the first type, Office personnel are to evaluate the underlying process the computer will perform in order to determine the patentability of the product.

The mere fact that a hardware element is recited in the claim does not necessarily limit the claim to a specific machine or manufacture. If a product claim encompasses any and every computer implementation of a process, when read in light of the specification, it should be examined on the basis of the underlying process. Such a claim can be recognized, as it will define the physical characteristics of a computer or computer component exclusively as functions or steps to be performed on or by a computer, and encompass any and every product in the stated class, configured in any manner to perform the process.

Claims that define a computer related invention as a specific machine or specific article of manufacture must define the physical structure of the machine or manufacture in terms of its hardware or hardware and "specific software." The applicant may define the physical structure of a programmed computer or its hardware or software components in any manner that can be clearly understood by a person skilled in the relevant art. Generally a claim drawn to a particular programmed computer should identify the elements of the computer and indicate how those elements are configured in either hardware or a combination of hardware and specific software.

Further, to constitutionally interpret the word "process", the Supreme Court has held that: "\*\*\*A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. \*\*\*The Process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be a secondary

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consequence.”(emphasis added) *Diamond, Commission of Patents and Trademarks v. Diehr and Lutton*, 209 USPQ 1, 6 (1981) quoting *Cochrane v. Deener*, 94 U.S. 780, 787-788 (1876).

This Constitutional interpretation of the word “process” is a long-standing one that the Supreme Court requires to be applied in interpreting 35 USC 101. *Diamond v. Diehr* at 6. Consequently, the use of that interpretation is Constitutionally required when we interpret the Federal Circuit’s standard that a “new and useful process” is one that produces a useful, concrete, and tangible result”. Cf. *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 47 USPQ2d 1596, 1600-1601 (Fed. Cir. 1998).

Applicant discloses no “certain substances” that have been “transformed or reduced” in that applicant’s claims disclose no specific computer-readable medium, no manipulation of specific data representing physical objects or activities (pre-computer activity), nor do they disclose any specific independent physical acts being performed by the invention (post-computer activity).

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. **Claims 1-6, 9-11, 14-15, 19-23** are rejected under 35 U.S.C. 102(e) as being anticipated by Graettinger et al., U.S. Patent No. 5,839,438 [hereafter Graettinger].

**As per claim 1**, Graettinger teaches of a computing system comprising:

A. a computer including evaluation means for analyzing information which is entered into the computer and for generating analytical data based on the information (see column 3, lines 41-52: analyzing information on a computer system);

B. user input means for allowing a user to enter the information into the computer (see column 4, lines 55-59: using a keyboard as input means);

C. an output means connected to the computer for displaying an output generated by the computer (see column 4, lines 60-63: displaying output via computer monitor);

D. the evaluation means comprising means for configuring and interrogating and accepting the information entered through the input means, for organizing input of the information based on a plurality of inquiries produced by the evaluation means, the evaluation means selecting the inquiries based on information entered in response to at least one previous inquiry, the inquiries being made available at the output means (see column 3, lines 16-40: medical diagnosis system);

E. the evaluation means comprising means for controlling interactive acquisition of the information based on a running compilation of information for formulating and emitting the inquiries to the output medium, and the evaluation means comprising means for processing information which is random in content and for producing a continuous value measure between two extreme values as a characterization of an analytical result based on the information, and the input means allowing a user to retrieve, and have available as an output on the output means, the running information compilation at any time (see column 3, lines 16-52: providing doctors with diagnostic results based upon input parameters); and

F. *a storage unit in which information entered via said input means can be filed and selectively retrieved* (see column 9, line 67 through column 10, line 7: storing medical condition information via an accessible database).

**As per claim 2**, Graettinger teaches of a system wherein the evaluation means is operable in a plurality of operating modes, and wherein an operating mode for the evaluation means can be set via the input means (see column 9, line 39 through column 10, line 67: functions of the system based on doctors input parameters).

**As per claim 3**, Graettinger teaches of a system wherein the evaluation means comprises means for calculating the value measure from a calculation algorithm selected from the group consisting of fuzzy logic and probability algorithms (see column 3, line 41 through column 4, line 11: performing probability analysis based upon numerical results).

**As per claim 4**, Graettinger teaches of a system wherein the evaluation means comprises means for formulating an inquiry based on an analytical calculation of a potential informational gain of the inquiry (see column 14, lines 45-66: system operation in interactive mode).

**As per claim 5**, Graettinger teaches of a system wherein the evaluation means comprises means for making predetermined inquiries available via the output means in a hierarchically structured form for incremental answering via the input means (see column 14, line 45 through column 15, line 48: interactive querying based upon answered questions).

**As per claim 6**, Graettinger teaches of a system wherein the evaluation unit makes a plurality of predetermined inquiries available for common display in a question menu at the output means (see column 14, line 45 through column 15, line 48).

**As per claim 9**, Graettinger teaches of a system wherein a storage unit contains predetermined information related to a specific user (see column 9, line 67 through column 10, line 7: storing medical condition information).

**As per claim 10**, Graettinger teaches of a system wherein the evaluation unit has access to the information in the storage unit automatically (see column 9, line 67 through column 10, line 7).

**As per claim 11**, Graettinger teaches of a system wherein the evaluation means has access to the information in the storage unit upon output at the output means of an inquiry relating to the information stored in the storage unit (see column 9, line 67 through column 10, line 7).

**As per claim 14**, Graettinger teaches of a system wherein the evaluation means comprises means for making analytical data available at the output means in a plurality of forms (see column 12, line 66 through column 13, line 13: making output data available to doctors).

**As per claim 15**, Graettinger teaches of a system further comprising a storage unit in which additional informational data, relative to the analytical data, are contained, the additional



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data being accessible by the evaluation means (column 9, line 67 through column 10, line 7: storing and accessing historical and relevant information).

**As per claim 19**, Graettinger teaches of a system wherein the computer and the output means are disposed remote from each other (see column 4, line 55, through column 5, line 24: employing the system over a network).

**As per claim 20**, Graettinger teaches of a system wherein the computer and the output means are disposed together so as to be simultaneously accessible by a user operating the input means (see column 4, line 55, through column 5, line 24).

**As per claim 21**, Graettinger teaches of a system wherein a storage unit is disposed remote from the output means (see column 4, line 55, through column 5, line 24: using a remote server amongst other network configurations).

**As per claim 22**, Graettinger teaches of a system wherein a storage unit is disposed remote from a computer (see column 4, line 55, through column 5, line 24).

**As per claim 23**, Graettinger teaches of a system wherein a storage unit is integrated in the computer (see column 4, line 55, through column 5, line 24: employing a standalone system configuration).

***Allowable Subject Matter***

6. **Claims 13, 24 and 25** are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

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the cited prior art fails to explicitly teach of an evaluating means for analyzing information whereby an analysis is performed based upon the weighted reduction of entropy, and a determination of the omission of relevant input information.

### ***Conclusion***

8. An inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Booker whose telephone number is (703) 308-4088. The examiner can normally be reached on Monday-Friday from 7:00 AM-5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri, can be reached on (703) 305-0282. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

An inquiry of a general nature or relating to the status of this application proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

**K.E.B.**

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**January 9, 2004**

*Ramesh Patel*  
RAMESH PATEL  
PRIMARY EXAMINER 1/14/04  
*For Anil Khatri*